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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,289	03/12/2004	Hae-Jin Heo	1568.1089	6444

49455 7590 01/18/2007  
STEIN, MCEWEN & BUI, LLP  
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WASHINGTON, DC 20005

EXAMINER
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TRAN, MY CHAU T

ART UNIT	PAPER NUMBER
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2629

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/18/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/798,289

Applicant(s)

HEO, HAE-JIN

Examiner

MY-CHAU T. TRAN

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 24 and 25 is/are rejected.
- 7) ☒ Claim(s) 1-23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                        |                                                                    |
|----------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. <u>20070103d</u> .                          |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application  |
| Paper No(s)/Mail Date <u>3/12/04</u> .                                                 | 6) <input type="checkbox"/> Other: _____                           |

## DETAILED ACTION

### *Application and Claims Status*

1. Claims 1-25 are currently pending and are under consideration in this Office Action.

### *Priority*

2. Receipt is acknowledged of papers, (i.e. Korean Patent Application No(s). 2003-39346; Filed: June 18, 2003), submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Information Disclosure Statement*

3. The information disclosure statement (IDS) filed on 03/12/2004 has been reviewed, and the references that have been considered are initialed as recorded in PTO-1449 form.

### *Claim Objections*

4. Claims 1 and 3 are objected to because of the following informalities:

A. Claim 1 recites the method step of '*sequentially applying a single scan pulse to the scan electrode lines during a two-color driving period*', however, this method step can not be performed by the claimed device of '*liquid crystal display panel*' and '*lighting device*', but rather by a controller as illustrated by figure 1 (see ref. # 56, 57, and 58) of the instant application. It is suggested that applicant amend claim 1 adding the phrase "by a controller," between '*driving period*' and '*the method*' of line 5, and the phrase "by a controller" between '*combined*' and '*two colors*' of line 8.

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B. Claim 3 recites the functional limitation of '*sequentially applying a single scan pulse to the scan electrode lines during a two-color driving period, in which the two color driving periods among the three color driving periods are combined and two colors are activated while the single scan pulse is applied to the scan electrode lines*', however, the limitation can not be the function of the liquid crystal apparatus as claimed, i.e. the claimed device of '*liquid crystal display panel*' and '*lighting device*', but rather by a control means as illustrated by figure 1 (see ref. # 56, 57, and 58) of the instant application. It is suggested that applicant amend claim 3 by replacing the phrase '*the liquid crystal apparatus*' with "a control means" of line 7.

Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 24 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Kaneko (US Patent 6,188,379 B1).

For **claim 24**, Kaneko disclose a field-sequential color display system and the method of driving the color display system (see e.g. Abstract; col. 1, lines 6-12; col. 4, lines 24-29). As illustrated in figure 4, the method comprises to fields, i.e. f1 and f2, (refers to instant claimed limitation of two color driving period) that comprises three subfields (refers to instant claimed

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limitation of three color driving period) wherein the red and green colors are activated (refers to instant claimed limitation of activating two colors)(see e.g. fig. 4; col. 7, lines 42-64).

For **claim 25**, Kaneko disclose that the subfields comprise the color of red, blue, and green (see e.g. fig. 4; col. 7, lines 42-64).

Therefore, the method of Kaneko does anticipate the instant claimed invention.

### ***Allowable Subject Matter***

7. The following is a statement of reasons for the indication of allowable subject matter:

The instant claims 1-23 are allowed for the reason that the cited prior arts do not teach or fairly suggest the presently claimed apparatus and method wherein the apparatus comprises a liquid crystal display panel having data electrode lines allocated for three colors, a lighting device installed in the back of the liquid crystal display panel, and a control means that *'sequentially applying a single scan pulse to the scan electrode lines during a two-color driving period, in which the two color driving periods among the three color driving periods are combined and two colors are activated while the single scan pulse is applied to the scan electrode lines'*.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MY-CHAU T. TRAN whose telephone number is 571-272-0810. The examiner can normally be reached on Monday: 8:00-2:30; Tuesday-Thursday: 7:30-5:00; Friday: 8:00-3:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard A. Hjerpe can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

My-Chau T. Tran  
January 10, 2007



**RICHARD HJERPE**  
**SUPERVISORY PATENT EXAMINER**  
UNIT 2600